

fragments of spicules and small sand-grains; the capsules with cellular elements found within the fibres by Selenka (*loc. cit.*, p. 566, pl. xxxv. figs. 3-4) were not to be seen.

Colour.—Pale yellowish.

Habitat.—Station 186, September 8, 1874, lat. 10° 30' S., long. 142° 18' E.; depth 8 fathoms; coral mud.

Psammoclema, Marshall.

Spongeliæ with small flagellated chambers; external surface smooth.

Psammoclema ramosum, Marshall (Pl. III. fig. 8; Pl. IV. fig. 1).

Psammoclema ramosum, Marshall, Zeitschr. f. wiss. Zool., Bd. xxxv. pl. vii. fig. 12, 1880.

It is sufficient to compare the drawing of this form given by Marshall with that given by me on Pl. IV. fig. 1, in order to become persuaded of the fact that both the Challenger and Dr. Marshall's specimens belong to the same species. There are, however, in the description which Dr. Marshall gives of his specimens, two points at variance with my observations, but I am inclined to explain one of them by a mistake on the part of Dr. Marshall, and the other by a real difference in organisation but of no essential nature.

It has been stated by Marshall that the skeleton of his *Psammoclema ramosum* is tree-like, the main fibres sending lateral branches which ramify in their turn but form no anastomoses. I can state the same with respect to the *upper ends* of the branches of the animal, but so far as other parts of its body are concerned, I discerned the anastomoses clearly (Pl. III. fig. 8). Again, Dr. Marshall believes the canal system of this species to be of special interest. He says: "Die Mundöffnungen befinden sich alle auf einer Seite, wie bei manchen Formen von *Halichondria oculata*, Grant, und bei *Veluspa polymorpha* var. *digitata*, Miélucho. Es scheint dies dafür zu sprechen, dass der Schwamm nicht aufrecht wächst, sondern wie viele Pflanzen im Meere, horizontal. Ein aufrechtes Wachstum dürfte wohl auch schon bei der Schwere des Schwammes seiner geringen Festigkeit und Widerstandsfähigkeit gegenüber unmöglich sein."¹ Indeed, on some branches of the Challenger specimen the oscula were all found on the same side, but on others they were scattered everywhere, and having examined the external surface of the specimen, I found all its parts equally smooth and clean. I must therefore differ from Dr. Marshall with regard to his conclusion as to the kind of growth of the animal. I think it grows vertically, and am inclined to believe that the peculiarity in the disposition of the oscula on Dr. Marshall's specimens is characteristic only of the individual. For a more detailed description of the animal, I refer the reader to the paper of Dr. Marshall above mentioned, and will only add that its flagellated chambers agree closely as regards form and size with those of my *Psammoclema vosmaeri* (Pl. III. fig. 6), and that, on the

¹ *Loc. cit.*, p. 112.